

**Answering the Call for the Best and the Brightest:  
A Proposed Survey of Accounting 201 Students**

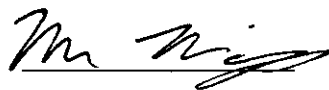
An Honors Thesis (HONRS 499)

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### **Abstract**

The accounting profession has found it necessary to expand its business roles and compete as information service providers in the new Information Age. Consequently, accounting educators have been challenged to restructure out-dated programs, revise curricula, develop varied teaching methods, incorporate new technologies, and foster critical thinking, decision-making, communication, and life-long learning skills in their students. Introductory accounting courses are especially important to this accounting education reform, needing to promote a positive image for the profession and to attract and retain the best and brightest students to the major. This report proposes survey questions for ACC 201 students at Ball State University in order to study the course's high failure rate and to establish baseline data on student demographics, perceptions, and learning styles for future accounting studies and evaluations.

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## **Answering the Call for the Best and the Brightest:**

### **A Proposed Survey of Accounting 201 Students**

The business world has experienced tremendous growth and technological change within the last two decades, resulting in many issues for the accounting community to address. The profession has found it necessary to compete with other business disciplines for new roles as service providers of expanding information needs, and accounting educators have been called upon to change their course curricula, teaching styles, and recruitment methods for the best and brightest students.

This report examines the changing role of accountants and the historical evolution of the current crisis faced by accounting educators to prepare students for the challenging and ever changing business world. In particular, the beginning accounting class at Ball State University, Accounting 201, is addressed with regard to not only its high failure rate but also its ability to provide baseline information regarding potential accounting students in the College of Business at Ball State. Proposed survey questions are presented to determine demographic information, student perceptions of the accounting profession, and student learning styles. This information, if collected and analyzed, can be useful in developing and evaluating future accounting studies, projects, and programs at Ball State.

### *Accounting—A Changed Profession*

If there is one thing certain today in the business world, it is that enormous changes will occur whether we are ready for them or not. Rapid technological advancements in the Twentieth Century laid the groundwork that has forever changed our culture and society, and now in the early years of a new millennium, change drivers and technological trends continue to exert

pressure for changes at an even greater pace than before. The simplicities of the Agricultural Age and the Industrial Age have been replaced by the technological complexity of the Information Age. Today we have the capability of nearly instantaneous communication with the far corners of the globe. Technology has provided us with the Internet, notebook computers, palm pilots, fax machines, e-mail, video conferencing, cellular phones, pagers, and other wireless communication; powerful database engines, data mining tools, and business intelligence software have made possible quick, graphical summaries and analyses of large amounts of data; and we now share in a global economy where goods and services come to us from many countries around the world.

As we transcend time and space with new technology and knowledge software, many of our old concepts and terminology regarding work, professions, organizations, and business are destined to be redefined. In the Information Age, business managers and their customers expect immediate access to information for on-the spot, just-in-time decision making. There is no time to wait for lengthy, manually or batch processed reports to be generated at the end of set, financial time periods. In the Twenty-first Century, business leaders must be able to respond to data and implement changes quickly in order for their companies to survive in a highly competitive environment.

The accounting profession has been greatly impacted by the Information Age and its new technology. Traditionally viewed as conservative “bean counters” (Reeb & Cameron, 2000, p. 1), CPAs have been reinventing their profession in the last several years, particularly since the introduction of the personal computer (PC) to the business environment (Zarowin, 2000). Although some might argue that the PC and its ever more powerful software products will

eventually lead to the extinction of the accounting profession, this is likely only true for the more traditional roles that accountants have performed. The American Institute of Certified Public Accountants (AICPA) has conducted on-going image campaigns in recent years to change old perceptions about the accounting profession and to redefine and expand upon its core values. AICPA projects such as the Vision Process and its Future Forums, which have been conducted in every state since 1997, have sought to move the accounting profession into the future by identifying and defining new, expanded services (Melancon, 1998, p. 3). It is generally recognized that the profession must compete in the current marketplace, providing value-added services beyond traditional audits and other traditional services (Melancon, 1998).

Statistics reported in *The First Century of the CPA* by Dale Flesher, Paul Miranti, and Gary Previts (2000) indicate a large increase in the number of CPAs, growing from 9,000 in 1945; to 95,000 in 1973; and to 350,000 in 1996. Flesher, Miranti, and Previts (2000) further indicate that “the period since the mid-1970s has been one of renaissance and increasing sophistication for the profession” (p. 5) and that the membership of the AICPA has changed from a public accounting orientation to a predominantly managerial accounting background. Today approximately 42% of CPAs in the United States are employed in business and industry (Melancon, 1998, p. 3). These accountants particularly feel the pressure from new technology to modernize, make information immediately available to business managers, and become true business partners in providing value-added information for managerial decision-making.

To be useful in today’s rapid-paced business environment, management accountants must be able to provide timely, relevant, concise, and materially accurate information to management (Reeb & Cameron, n. d.). Traditionally, accountants have placed the most emphasis on accurate

information without regard to the time involved; however, management can often make better use of quick estimates or approximations of real values. Thus accountants in the future must be more comfortable with ambiguities, uncertainties, and approximations—a real shift from their traditional image and comfort zone of precision.

In their paper *Getting Beyond Counting*, William Reeb and Michelle Cameron (n. d.) describe the role of a controller as that of an information manager of both financial and non-financial information. As such, CPAs must function in new roles as artists, educators, and visionaries. As artists, they must be able to extract the meaning of data, select and simplify the relevant information, and present it clearly to management (Reeb & Cameron, n. d., pp. 3-4). As educators, CPAs must train data users in understanding accounting material and must build effective communication bridges across departments to demonstrate the financial service aspect of the accounting function and to promote interdepartmental interaction (Reeb & Cameron, n. d., pp. 4-5). As visionaries, accountants must delegate their repetitive work to clerical personnel and move on to the higher level tasks of analyzing data and forecasting future implications (Reeb & Cameron, n. d., p. 5). These new roles will require considerable understanding of emerging technologies and new business techniques. According to Reeb and Cameron (n. d.), the CPAs of tomorrow will become business partners and change agents with larger management roles.

Stanley Zarowin (2000) shares Reeb and Cameron's (n. d.) view of management accountants as business partners and change agents—what Zarowin (2000) defines as “new accounting” (p. 1) in his article, *Finance's Future: Challenge or Threat?* New accountants will be “the key personnel involved in developing, configuring, and dispensing information throughout the organization” (p. 4) and “the drudge work must be taken off their plates and

shunted to computer systems that excel at handling transaction processing” (p. 4). Experts have estimated that only half of traditional CPAs will be able to make the transition from their comfortable, traditional roles in transaction processing and as reporters of historical data to the roles of new accountants; however, this may ultimately cost them their jobs or throw them into lesser paying, clerical jobs if they fail to adjust to the new, expanded roles (Zarowin, 2000, p. 5).

Another concern for the accounting profession is restoring professional credibility following the Enron, WorldCom, Arthur Andersen, and other accounting scandals over the last two years. Even before the Enron incident, a Harris Poll conducted on September 6, 2000, ranking seventeen professions with regard to prestige, resulted in doctors at the top of the list, teachers at number three, engineers at number eight, lawyers at number ten, businessmen at number fifteen, and accountants on the very bottom of the list at seventeen (Taylor, 2000, p. 2; Savage, n. d.). It may be too early to know the full impact of recent negative/comedic backlashes, such as accountant jokes by late night comedians, satirical comments by President Bush about Andersen auditors counting Iraqi weapons, and new H&R Block television commercials implying that CPAs are incompetent and unprofessional; however, the AICPA sees the immediate need to work on its image—old and new.

The Big Four firms are looking to re-establish the integrity that once made the profession proud: CPAs, though viewed as “conservative, too slow to act, not technologically advanced, unaware of the big picture, and behind the times” (Melancon, 1998, p. 1), were nonetheless admirably viewed as “very reliable, highly intelligent, competent, ethical, [and] honest” (Melancon, 1998, p. 1). In an effort to restore and reinforce a positive image for the accounting profession, KPMG LLP has launched a campaign to address the topics of leadership, standards,



vision, and integrity (SmartPros, 2003). To regain credibility, CPAs will need to address such issues as accounting versus accountability, the need for new controls, rules versus principle-based accounting, and other ethical concerns (SmartPros, 2003).

Educating future accountants will be a challenge, and traditional programs will need to change. In fact, many companies, such as GE, no longer search for accounting majors or even MBAs for entry-level positions in their finance departments, opting instead to hire “bright people who are adaptable, not those who are stuck in yesterday’s business paradigm” (Zarowin, 2000, p. 3). These companies then provide their own financial training, which covers such topics as analysis of data to support decision-making. Even the Big Four have shown declining percentages of new hires with accounting degrees—sometimes for reasons other than the recent decline in number of accounting graduates (Zarowin, 2000). One approach by these CPA firms has been to hire broadly educated individuals and then send them to custom-built programs for masters’ degrees in professional accounting, such as the partnership that Ernst and Young has for this purpose with Notre Dame and the University of Virginia.

If the accounting major is to survive, accounting programs must address the competencies required by new accountants and change accordingly. The new accountant must be able to analyze data, think critically, form recommended solutions to problems, communicate to all levels of employees/management, and remain adaptable to changing business environments. The challenge to business schools is to provide a broad education, yet with considerable subject depth, that will enable students to be flexible, life-long learners, capable of providing value-added, yet-to-be-defined services in the future.

*Accounting Education—The Historical Perspective*

The concept of a broad, liberal education is not new to the accounting field. For more than one hundred years, accounting practitioners have made the call for accounting students to receive a broad, liberal-based education; however, accounting educators have repeatedly responded with technical, rule-based curriculums that place heavy emphasis on rote memorization (Nelson, 1995).

The first state accounting law within the United States was passed in New York in 1896, and by 1921, the public accounting profession had spread to every state in the nation (Flesher, Miranti, & Previts, n. d.). Although in its infancy in the United States at the start of the Twentieth Century, the accounting profession had guiding influence in the business community. With the appearance of state CPA societies, accountants began to push for business schools to be established within universities, and with accounting professionals' influence and money, the first business schools began to appear (Previts & Merino, 1979, p. 153). According to Previts and Merino (1979), however, their goals for broad programs that would emphasize theory and philosophy were never realized:

Most practitioners considered mastery of the technical procedures of auditing and accounting to be most effectively learned through practical experience; education's role was to develop analytical ability. Accounting, they believed, required a wide range of knowledge and minds trained to think analytically and constructively. They supported a broad program emphasizing theory and philosophy and were disappointed when the evidence accumulated that accounting educators tended to emphasize the narrow, technical training. (pp. 154-155)

Educators at that time in history were strongly influenced by the theories of John Dewey, “who stressed practicality and relevance” (Nelson, 1995, p. 63). Teaching of broad, classical subjects gave way in favor of narrow, vocational education.

The period of the 1920s and the 1930s brought turmoil, criticisms, increased regulations, and an explosion of technical knowledge to the accounting profession. The Securities Laws were passed in 1933-34 (Flasher, Miranti, & Previts, n. d.), the Securities Exchange Commission (SEC) was created, income tax legislation was passed, and the American Institute of Certified Public Accountants (AICPA) began to put forth many technical accounting rules (Nelson, 1995). Accounting educators were faced with a three-way educational dilemma in structuring curriculum: breadth of education vs. depth of learning vs. technical coverage (Nelson, 1995). The response of the academic community, in spite of protests from practitioners, has generally been to add specialized accounting courses (Previts & Merino, 1979, p. 154). Also, accounting degree programs have tended to teach to the CPA exam and often measure their school’s success against their CPA “pass rate” (Nelson, 1995, p. 64). This has fostered the use of lectures and non-ambiguous, multiple-choice exams, which allow students to get by with rote-memorization styles of learning and little need for analytical/critical thinking and development/practice of communication skills.

Ironically, in 1959, two studies, the Carnegie Foundation study and the Ford Foundation study, were published, which greatly impacted business education in the 1960s by recommending less emphasis on specialized business subjects and more emphasis on liberal studies in humanities, arts, and sciences (Nelson, 1995, p. 67). Unfortunately, the American Accounting Association (AAA) rejected those recommendations, and accounting remained an

exception to the changes that resulted in other business majors/courses at that time (Nelson, 1995). From the 1950s through much of the 1970s, accounting was viewed as the most prestigious business profession, and many of the best and brightest students became accounting majors (Collins, 1987, p. 52). Consequently, even though the accounting education was very narrow and technical in scope, accounting graduates were nonetheless well qualified, likely “due more to the caliber of the students than to the curriculum” (Nelson, 1995, p. 67).

The push for postgraduate education, e.g., the 150 credit-hour requirement and the recommendation for five years of education beyond high school, is also not a new concept in accounting education (Nelson, 1995, pp. 67-70). Many accountants, as early as 1883 and before the first state accounting law was even passed, were pushing for professional schools of accountancy that would follow liberal, undergraduate educations (Langenderfer, 1986, p. 304). Again in 1936, accountants were discussing the need for five years of study past high school (McCrea & Kester, 1936, p. 112). In 1969, Elmer Beamer and his accounting education committee, formed by the AICPA to define the basic body of knowledge that CPAs should acquire in college, concluded that a five-year collegiate program was needed (Flesher, Miranti, & Previts, n. d.). It is only today, after the 150 hour CPA requirement went into effect in the year 2000, that this goal is being more fully realized; however, there is still much criticism that many of these programs are just a continued fifth year of a too narrowly focused and technical education (Nelson, 1995). Ironically, many today even argue that a fifth year for accounting professional education, which was the right idea in the not so distant past, no longer seems compelling (Albrecht & Sack, 2000, p. 30).

The breadth vs. depth vs. technical debate is not new in the history of accounting education, but the arguments for curriculum change are much more compelling today than ever before with the advent of the Information Age and the vastly changing accounting profession. In a business environment where technology and anything learned today will be changed and outdated tomorrow, it is clear that professionals face a lifetime of job changes and learning. Students must receive the best education possible to encourage flexibility and adaptability to change itself, recognizing that there is little benefit in just memorizing rules today that won't be rules tomorrow.

#### *Accounting Education—The Recent/Current Crisis*

For nearly twenty years now, the accounting community has been expressing even more alarm than before regarding the state of accounting education and the perceived need for changes in curriculum. In 1986, the AAA published its special report, *Future Accounting Education: Preparing for the Expanding Profession*, commonly referred to as the Bedford Report (AAA, 1986). This report, after examining the expanding nature of the accounting profession, alerted that “a growing gap exists between what accountants do and what accounting educators teach” (AAA, 1986, p. 170) and concluded that “a complete reorientation of accounting education may be needed” (AAA, 1986, p. 170). The committee (AAA, 1986) cautioned that traditional learning processes and teaching methods that emphasize lectures and routine-problem-solving are inadequate and not conducive to student motivation and creative thinking. The Bedford committee (AAA, 1986) recommended that accounting education be approached as an information development and distribution function for economic decision making; that new and more relevant educational processes and methods be adopted which require students to become

active, independent learners and problem solvers with high standards of professional ethics rather than just passive recipients of information with no professional commitment; and that student skills and capacities be developed that encourage and promote life-long learning. Failing to meet the expanding educational needs of accounting professionals, according to the Bedford committee (AAA, 1986), could result in a profession that can not compete with other disciplines for the many new opportunities to provide the diverse services required in the global world of the Information Age. The result would be a much narrower scope for the accounting profession.

Several papers and initiatives have echoed the Bedford committee's arguments for needed changes in accounting curriculum and teaching methods. In 1989, the (then) Big Eight accounting firms argued in their White Paper, *Perspectives on Education: Capabilities for Success in the Accounting Profession*, that accounting education should focus on "developing analytical and conceptual thinking—versus memorizing professional standards" (p. 7). The position of the White Paper was that accounting curricula and teaching methodology should develop the communication, intellectual, and interpersonal skills of accounting students at every level of their education (Big Eight, 1989). This philosophy was further embraced by the Accounting Education Change Commission (AECC, 1990) in their Position Statement No. 1, *Objectives of Education for Accountants*. In 1999, the AICPA *Vision Project* report listed five core competencies that new accountants will need for success: communication and leadership skills; focus on the customer, client, and market; technological adeptness; interpretation of converging information; and strategic and critical thinking skills. In that same year, the Institute of Management Accountants (IMA, 1999) concluded that accountants need the following skills to succeed: communication, teamwork, analytic skills, and an understanding of how business

functions. In 2000, the AICPA published the *Core Competency Framework*, which called upon educators to critically evaluate curricula and teaching methods, develop a “broad business perspective” (AICPA, 2000, p. 1), and help accounting students emerge as “valued business advisors” (AICPA, 2000, p. 1).

In spite of the many wake-up calls that occurred before the new millennium, many critics of accounting education still feel the warnings have been unheeded and that the state of accounting education has now reached a crisis level (Albrecht & Sack, 2000). At the time of the Bedford Report, employment opportunities for accounting graduates were excellent and enrollment in accounting programs had been increasing for a number of years. For example, the number of bachelor accounting degrees granted per year had increased by 110% from 23,800 in the 1971-72 academic year to 49,870 in 1979-80 (Sanders, 2002, p. 4). By the year 2000, however, a disturbing trend had emerged. After reaching a peak of 53,600 bachelor’s degrees awarded in 1990-91, the number fell by 31% to 37,115 in 1999-00, the lowest since 1973-74 (Sanders, 2002, p. 4). Is this decrease an indication of a failure on the part of accounting education to adequately prepare students for new accounting roles?

In 2000, four major accounting organizations—the IMA, the AICPA, the AAA, and the (then) Big Five professional services firms—jointly sponsored a new study and report, *Accounting Education: Charting the Course through a Perilous Future*, authored by W. Steve Albrecht of Brigham Young University and Robert J. Sack of the University of Virginia. Albrecht and Sack (2000) stated that their report was motivated by their “belief that accounting education today is plagued with many serious problems and [their] concern that if those problems are not seriously addressed and overcome, they will lead to the demise of accounting

education” (p. 1). Listing new information technology, globalization, and the concentration of power in certain market investors as drivers for change, Albrecht and Sack (2000) presented convincing evidence of three alarming facts regarding accounting education: the number and quality of students electing to major in accounting is decreasing rapidly, practicing accountants and accounting educators would not major in accounting today, and current accounting education is “outdated, broken, and needs to be modified significantly” (p. 1).

Although the Albrecht and Sack (2000) report recognized that some schools have changed to meet new demands for educating accounting students, it nonetheless concluded that changes have not been pervasive or substantive enough and that accounting programs must now compete with other business and non-business majors, e.g. finance, management information systems, and computer science, for new business roles. Problems regarding course content and curricula, pedagogy, skill development, technology, faculty development and reward systems, and strategic direction were addressed in the report (Albrecht & Sack, 2000). Recommendations were made for providing combined degree programs, such as accounting/finance or accounting/information systems, and many of the same or similar conclusions were drawn by Albrecht and Sack (2000) as earlier studies regarding the need for broad-based, liberal arts education; integrated business education across multiple disciplines; and development of life-long learning skills for deep, analytic thinking and problem solving in ambiguous, non-structured environments. Albrecht and Sack (2000) observed that there could be no “one-size fits all” (p. 60) approach to improving accounting education, but that each school or department would need to develop their own strategic plan and best approach to attaining goals by assessing their unique



environments, degree offerings, curricula and course contents, pedagogy, and investment in faculty development.

What has happened in the three years since Albrecht and Sack's wake-up call to accounting educators? The good news is that the most recent statistics (2000-01) show that accounting enrollments had increased by 5.3% over the 1999-2000 academic year (Sanders, 2002, p. 4). Last fall, Reuters (2002), citing from *Bowman's Accounting Report Email Alert*, reported, "After suffering five years of steady declines, business schools across America report that enrollment in accounting courses has risen to levels not seen since the heady mid-1990s" (p. 1). Examples include a 35% increase in students enrolled in CPA-track senior courses at Emory University, a 13% jump in the number of accounting majors at Western Michigan University, and a ten-year high enrollment in the introductory accounting course at the University of South Florida (Reuters, 2002, p. 1). According to the National Association of Colleges and Employers 2002 Salary Survey, management information systems majors were number five of the top ten highest starting salaries at \$43,732; accounting majors were number seven at \$40,293; economics/finance majors were number eight at \$40,047; marketing majors were number nine at \$35,374; and business administration majors were number ten at \$35,209 (Keohane, 2003, 4). Further, there is an anticipated shortage of qualified auditors for the next two or three years, and experts consider CPA job prospects to be "essentially 100 percent in both strong and weak economies" (NYSSCPA, 2002, p. 1).

Were the pessimistic statistics reported by Albrecht and Sack (2000) the result of unusual economic times when other business majors were more lucrative and viewed as more exciting than accounting? Are the perceived problems with accounting education unique to just the

discipline of accounting or are they common to all higher education disciplines? In *The Crisis in Accounting Education*, Alexander Gabbin (2002) commented, “A major shortfall of the [Albrecht and Sack study], when read today, is that it was written during good economic times” (p. 8). The possibility was entertained that a slower economy and the events of September 11, 2001, would have tempered the survey and focus group responses of the Albrecht and Sack (2000) study (Gabbin, 2002, p. 8). Gabbin (2002), however, concluded that there has been a flight of the best students to other careers and that accounting educators have been slow to make changes needed to reverse that loss:

If accounting educators and practitioners are not stronger advocates for the profession, the number of students interested in studying accounting will continue to decline...Accounting today offers a host of opportunities...Educators and practitioners must continue to reinforce the image of the profession. Perhaps, because of recent events, more students will select accounting as a “safe” field of study. (p. 9)

Steven Kachelmeier (n. d.), in his article *In Defense of Accounting Education*, also took exception to the strong criticism of accounting education by Albrecht and Sack and others:

As a profession, accounting fares less well than other areas in the best economic times, and it does not suffer as much in the worst economic times. In the soaring economy of the late 1990s, we should not have been shocked to see 20-year-old undergraduates attracted to the starting salaries available in other disciplines. Accounting practitioners often contend that starting salaries in accounting are market-driven. This is true, but markets can reach equilibrium in multiple ways. Either salaries increase to attract the

quality of students that accounting firms say they want, or the quality of students will decrease to match the salaries that firms pay.

Of course, the economy today is not what it was in 1999. And just as one might suspect, we continue to produce five-year accounting students that have jobs waiting for them, while their fellow graduates find it more difficult to get interviews. First-year Ph.D. students of 2000 at Texas found the Albrecht and Sack monograph to be provocative and timely, whereas the first-year class of 2001 emphasized how outdated it appeared. The economy changes, just as accounting education has changed.

(Kachelmeir, n. d., p. 2)

While conceding that efforts are far from complete in changing accounting education to meet today's expectations for the profession, Kachelmeier (n. d.) stressed that accounting educators have not turned a deaf ear to the many calls for educational reform and argued that "there are reasons to believe that the real exception these days is the narrow, rule-based accounting education stereotype" (p. 1). Kachelmeier (n. d.) disagreed that accounting education is either broken or fixed, but in reality is closer to a continuous improvement process that accommodates the demands of a changing world.

Regardless of how one personally views the status of accounting education or how strongly one subscribes to the belief that there is a crisis in accounting education, the need always exists to continuously assess the evolving needs of the profession, determine the characteristics and capabilities of potential accounting students, and evaluate the success of individual programs, making changes where necessary for improvement.

*Accounting Education—The Importance of the Introductory Course*

The success of any accounting program begins with its introductory course. The AECC (1992) and other professional accounting groups have emphasized the importance of the first course in accounting for all business majors. For the business student in general, the introductory accounting course should present useful accounting information and techniques, develop needed decision-making skills, and promote the image of accountants as valued members of business teams. As such, accounting and business educators have recently seen a critical need to examine the first two introductory accounting courses:

If the courses are focused primarily on transaction analysis and financial statement preparation, and exclude appropriate use of technology, group work experiences, development of analytical skills, and interpretation of financial statements, then it is unlikely that the courses are preparing students for their business careers. Even more importantly, traditional accounting courses do not encourage students to question accounting's role in society. (White, n. d., p. 11)

Given that no more than 15-20% of students taking introductory accounting will become accounting majors, many accounting departments, e.g. California State University at Chico, have reengineered introductory accounting courses to focus on users of accounting information, thus developing an accounting literacy in students that can foster problem-solving and decision-making skills (DeBerg, Adams, & Lea, n. d.). It is argued that this user focus in the introductory accounting course can be appropriate and extremely beneficial for accounting majors as well.

The first course in accounting also plays a critical role in attracting and retaining new accounting majors. Research has shown that a student's experience in an introductory

accounting course is a strong determinant in the decision to major in accounting (Adams, Pryor, & Adams, 1994). In that light, the AECC (1992) views the introductory course as particularly important in its impact on student perceptions regarding the accounting profession and one's potential success as an accountant:

The course shapes their perceptions of (1) the profession, (2) the aptitudes and skills needed for successful careers in accounting, and (3) the nature of career opportunities in accounting. These perceptions affect whether the supply of talent will be sufficient for the profession to thrive. (pp. 1-2)

Observing that many introductory accounting courses have not been significantly changed for decades, Albrecht and Sack (2000) noted:

Important is what is not portrayed in introductory accounting courses. Accounting is not portrayed as a creative profession, nor is it portrayed as a profession where you work with other people, in an advisory role, to solve problems. (p. 30)

According to Albrecht and Sack (2000), traditional courses focus on mechanical procedures and the ability to solve narrow homework problems with one right answer. Lynn S. White (n. d.), in her article *Change in Accounting Education and its Impact on Christian Liberal Arts Colleges and Universities*, concluded that students are left with the impression that “a career in accounting involves a lot of tedious, detailed work that at best allows accountants to provide information to other professionals who then get to make the interesting, important decisions” (p. 11).

#### *Accounting 201—A Proposed Survey of Students*

What is the nature of the first introductory accounting class at Ball State University—Acc 201, Principles of Accounting 1? Is this course a traditional course; has it been reengineered to

focus on a user's perspective of accounting information; or has it been reengineered to develop the broader skills needed for "new" accountants? How do students perceive this course? Does it lead to a positive image of the accounting profession and help students to understand the varied roles of accountants? Why do one-third of the students who enroll in the course either drop the course or receive a D or F? Is the course biased in favor of certain student learning styles or stereotypes of accounting students? Does the course encourage the best and brightest students to become accounting majors?

The undergraduate course catalog describes Acc 201 as "an introduction to accounting with emphasis on the basic principles underlying the accounting cycle [which] includes the preparation of reports to management and external users of financial statements" (BSU, 2002, p. 1). This description sounds very traditional in content, but a more detailed analysis would be required to assess this course's overall effectiveness in developing critical thinking skills and how well it fits within the overall strategy of the Business College and the Accounting Department at Ball State. This is not the focus of this study proposal. Instead, the intent within this report is to propose student survey questions that can uncover the demographics and characteristics of those students who take Acc 201 at Ball State. Also, this report proposes survey questions to determine students' perceptions of accounting in relation to other business majors and careers. Further, this report presents survey questions to determine students' learning styles.

Student learning style data can be used, in conjunction with information on demographics/student characteristics and student perceptions of accounting, to study failures/successes in ACC 201 and recruitment/retention of new accounting students throughout

the semester the course is taken. In other words, does ACC 201 attract and retain a certain stereotype of student to the accounting major—perhaps a stereotype that is counter to the “new” image? Does it show bias towards certain styles of learning, failing those students who don’t fit the mold? Surveys would be required at the beginning and at the end of the course to determine changes in perception, success/failure in the course, and changes in major, etc. If surveys are actually conducted and meaningful data compiled, then results will be available as baseline information for other accounting studies and program assessments at Ball State University. This could be beneficial as the Ball State Business College proceeds with its current efforts to restructure and realign departments and majors.

*Student demographics and characteristics.* For the 2003-2004 academic year, there are thirty-one sections of ACC 201 planned at Ball State, and each of these classes will have space for thirty to forty students. Three of the planned sections will meet once a week in the evening to accommodate part-time students with full-time work schedules. Two summer session sections will meet daily for five weeks. The remaining sections are approximately evenly split between MWF and TR classes in morning and afternoon time slots.

All pre-business majors and all minors in foundations of business are required to take ACC 201, which usually occurs in a student’s sophomore year, though there are no prerequisites for the course. Several majors outside the College of Business also require the course, e.g., legal assistance studies, dietetic technology, food management, residential property management, sport administration, aquatics, financial mathematics, etc. Given the various majors requiring ACC 201, a natural conclusion might be that challenges will certainly arise in addressing the needs of a diverse student population. Dr. Ursula Lucas (2003), as the head of a national

teaching fellowship project in England, recently reported the observations made by eighty accounting lecturers attending a workshop on key issues and problems faced by introductory accounting educators:

Lecturers stated that the sheer variety of students studying introductory accounting caused problems. A key issue here was a lack of knowledge about students and the relevance of accounting to their particular subject specialisms. Lecturers also felt that there was inadequate understanding of the entry knowledge of students and the way in which this might affect their approaches to learning. (p. 7)

To be successful, accounting faculty must take the initiative to know the personal characteristics of their students and take those characteristics into consideration when planning courses. Students today are reported to be vastly different from when most faculty members were in school. For instance, over 50% of college students today are women. At Ball State, that number is 56%. Today, more than one-third of college students are over 25 years old; 16% of college students are non-white; and an increasing number of students are enrolled part-time with competing time demands from family responsibilities and full time employment (Flaherty & Williams, 1995). As tuition costs continue to increase at Ball State, it is likely that more students will either work full or part-time while taking classes. The American Council on Education recently reported that 79% of all undergraduates work, averaging 25 hours per week, and “nearly 37% reported that employment negatively impacted their grades” (Barsky & Catanach, Jr., 2001, p. 2). There has also been some disturbing evidence that the quality of accounting students may be decreasing (Flaherty & Williams, 1995).



It is essential for Ball State to fully know the diverse student population that enrolls in ACC 201. According to Barsky, Catanach, Jr., and Rhoades-Catanach (2001) in *A Practical Guide to Implementing Substantive and Lasting Curriculum Change in Accounting*, understanding student demographics can provide a starting point on which a successful curriculum can be built:

Specific factors to consider include the students' socio-economic backgrounds, hours of student employment during college, family educational background, admissions quality measures (e.g. SAT scores, high school GPA, etc.), and technology proficiency...Do your students expect to double major, intern, study abroad? Are they looking for simply a job after graduation, or are they focused on a professional career? Do they view accountants as professionals, or servants of the wealthy? (pp. 5-6)

In *Changing Accounting Education with Purpose: Market-based Strategic Planning for Departments of Accounting*, Nelson, Bailey, and Nelson (1998) listed the following demographic factors as important for study: student quality, age distribution, ethnic composition, mobility, number transferring from other institutions, work experience, maturity, outside work demands, family demands, and language skills. All of these characteristics should be considered when planning the strategic direction of an accounting program.

The introductory accounting class is a natural location to collect student demographic/characteristics data via surveys; however, possibilities of employing data mining or business intelligence software with existing, historical enrollment databases would be an even better starting point to look for trends. Interesting findings could be further investigated or studied via surveys and other techniques, which could then possibly lead to experimental studies

or pilot programs to correct deficiencies. For example, Phillip Imel (2000) at Southwest Virginia Community College recently employed a data mining technique in looking for statistically significant differences between successful versus unsuccessful students in the college's introductory accounting class. Grades in freshmen English, verbal SAT scores, and overall GPAs were found to be positively correlated with introductory accounting grades (Imel, 2000). This knowledge about students will now be useful for the college to develop tools that can identify those who could benefit from remediation or other learning assistance.

Potential student characteristics/demographic questions are contained in Appendix A. These type questions can be answered directly by students in ACC 201 via survey questionnaires, or for some questions, if sufficient databases already exist, via query/data mining/business intelligence computer software tools. Such demographic type data by categories of information can then be used in conjunction with student learning style data to study changes in student perceptions at the beginning and end of taking ACC 201. The resulting impact on general student performance and recruitment/retention of new accounting majors can then be compared across categories of information.

*Student perceptions of accounting.* In addition to studying student demographic information and its relationship to student performance and student recruitment in the accounting major, it is particularly relevant to understand student perceptions of accounting education and the accounting profession. Noah Barsky and Anthony Catanach, Jr. (2001), in *Perception Is Reality: Managing Student and Parental Expectations Is Critical to Increasing Accounting Enrollments*, noted that "reliable data on student demographics and perceptions for individual institutions is not available to most accounting program administrators, [yet] it is such factors

that most often impact the success of the educational processes to which faculty typically devote their time” (p. 2).

Many recent reports indicate that students are misinformed on the roles that “new” accountants play in the business world today. At best there is a stereotypical image of boring, tedious, and detailed number crunching work performed by traditional accountants, but often the image is even worse than that, which should alert accounting educators to action:

Students’ images of accounting (and the accounting profession) are consistently negative and often appear extremely hostile. As accounting educators, we also seem to have been woefully deficient at combating the stereotypical images of accounting and accountants that are part of our culture. This is true even at a university that prides itself on emphasizing the underlying meaning of accounting and not just its technical manifestations. Perhaps this failure is due to insufficient attention to creating a positive image of accounting and accountants; perhaps it is due to the strength of the cultural images which students bring with them to the study of accounting; and perhaps the image is accurate (i.e., accounting and accountants really are boring and we’re kidding ourselves if we think we can convince anyone otherwise. (Bettner, 1997, p. 1)

In their paper *Some Thoughts on the Demise of the Accounting Major and Suggested Strategies for Survival*, Noah Barsky and Anthony Catanach, Jr. (n. d.) promote accounting as a relevant and valuable field of study regardless of major. Negative perceptions of the accounting profession and accounting education, though, have caused students recently to choose other majors. Adversely, accounting continues to be viewed as a bookkeeping function that is “boring, tedious, unimaginative, dull, etc.” (Barsky & Catanach, Jr., n.d., p. 1) and much less exciting and

“cutting edge” (p. 1) than disciplines like finance and information systems. Also, accounting is viewed by many as a difficult major that requires a lot of work without adequate compensation and job satisfaction. According to Barsky and Catanach, Jr. (n. d.), it has become increasingly difficult to show students the value of becoming a CPA.

Students today feel the need to have a double major or a double minor to elevate their prospects for employment, and the perception generally is that accounting is too difficult and labor intense to permit this (Barsky & Catanach, Jr., n. d.). Likewise, students who need to work perceive that they cannot devote the time needed for an accounting major and instead chose majors that they perceive to be easier. Some students perceive that internships are necessary for employment in accounting, but they don’t want to attend summer school to graduate on time or delay graduation by staying another semester in college. Other students would prefer to spend a semester studying abroad instead of doing an internship, and they perceive that this is incompatible with choosing accounting as a major. Still others, recognizing that accounting has changed as a profession and that accounting education must now deal with more uncertainty and ambiguity, are ironically turning away from this “new” image and the restructured accounting major (Barsky & Catanach, Jr., n. d.).

Marshall Geiger of the University of Richmond and Suzanne Ogilby (2000) of the California State University—Sacramento recently conducted an empirical study of students’ perceptions of their first accounting course. Geiger and Ogilby’s (2000) findings indicated that at the beginning of the course, intended accounting majors had a more favorable perception of the accounting class that they were about to take than non-accounting majors, but over the course of the semester, both accounting and non-accounting majors had diminished perceptions of the

course, especially by reporting more boredom in the end. At the end of the introductory accounting semester, course performance and individual instructors were found to be the major factors in recruiting and retaining accounting majors. Geiger and Ogilby (2000) stated that their study was only an initial attempt to gather information on student perceptions, but that additional studies were needed for replication and collaboration of results.

No two people see things in exactly the same light. Two students describing their experience in the same introductory accounting class may seem to be miles apart in their perceptions. According to Ursula Lucas (2001) of the Bristol Business School, this has caused a shift of focus in educational research “from viewing learning as an entirely cognitive process to viewing learning as an experiential process involving a much wider appreciation of the way in which students view the world” (p. 1). Lucas (2001) states, “This has led to the development and use of a research method called phenomenography, which seeks to identify the different ways in which individuals perceive, experience and understand aspects of their world” (p. 1). Lucas (2001) concluded the following regarding her research on introductory accounting:

My phenomenographic research study found that students experience the learning of accounting in very different ways. For some students, accounting is not seen to possess an inherent meaning other than as a ‘subject to be passed’. Thus they focus on learning accounting techniques and do not see the relevance (or irrelevance) of those techniques.

This is particularly linked to their negative preconceptions of accounting: that it is boring, about numbers and something to be feared. By way of contrast other students focused on ends rather than means. The techniques are there to produce information

which may (or may not) be relevant or of value within a business. These students perceived accounting to be relevant to them personally or to business generally. (pp. 1-2)

In another of her papers, *In a World of their Own: Students' Experiences of Introductory Accounting*, Ursula Lucas (1999) concluded that students often demonstrate a poor understanding of official accounting concepts, revealing alternative or intuitive views of accounting instead. These intuitive views are often hard to shake. Lucas (1999) recommended that lecturers “acknowledge and enter the students’ worlds of accounting so that the curriculum might be grounded in the experience of students” (p. 2). This would consequently, by incorporating intuitive views into introductory accounting, allow students to recognize and enter new worlds of accounting.

According to Stuart Kessler, head of the Foundation of the American Institute of CPAs, “We need to show people coming into the profession that it’s not only a viable profession, it’s an exciting one” (Self, n. d., p. 2). An understanding of the perceptions of students entering ACC 201 at Ball State is essential to structuring the course and its curriculum to encourage student success and to promote a more accurate and positive image of today’s accountant. Possible ACC 201 student perception questions, both pre-course and post-course, are listed in Appendix B.

*Students’ styles of learning.* No two people learn in the same way. In fact, individuals show preferences for different styles of learning. Some research has indicated that teaching styles in different classes may even show bias in favor of one or more learning styles at the detriment of other styles (Hewitt, 2000). Other research even suggests that individuals with preferences for certain styles of learning may choose certain careers over others, potentially giving rise to a preponderance of certain personality types over others in different disciplinary

areas or career fields (Schroeder, 1993). These phenomena can operate to perpetuate the old accountant stereotype and run counter to the profession's new goals of broadening its field of expertise (Wolk & Nikolai, 1997). Understanding the learning styles of those students who take ACC 201 can help introductory accounting educators at Ball State to structure their courses and vary their teaching techniques, thus assuring the success of more students and encouraging more diverse personality types to consider accounting as a career (Ewell, 2001).

In *Learning Styles: Implications for Improving Educational Practices*, Charles Claxton and Patricia Murrell (1987) compared the research on learning styles to four layers of an onion. Richard Flaherty and Jan Williams (1995), in *Intentional Learning: A Process for Learning to Learn in the Accounting Curriculum*, depicted the research as four concentric circles:

The center circle contains a number of models that describe personality types; next come a series of models of how people process information; then a layer of social-interaction models; and finally, the outer layer contains instructional-preference models. The center or core, personality traits, is generally quite stable; the other layers are more amenable to change. That is, students are more likely to change or adjust their preference for style of instruction than they are to change their preferred mode of processing information or their basic personality characteristics. (p. 44)

The discussion in this report will be on the learning style research of the two innermost circles, since they focus on characteristics more innate to the student and less likely to change. Consequently, education must adjust to the students' individual styles as opposed to expecting students to adjust to any particular style of pedagogy.

According to Flaherty and Williams (1995), the most widely used instrument to study the central research of learning styles, or personality types, is the Myers-Briggs Type Indicator (MBTI), based on Jungian psychology. The MBTI assigns scores on four scales based upon how an individual perceives the world and makes decisions: extraversion/introversion (E-I), sensing/intuition (S-N), thinking/feeling (T-F), and judging/perception (J-P). Flaherty and Williams (1995) differentiated the four scales as follows:

Extraversion means a person relates most easily to the active world of the people and things; introversion means the person prefers the reflective, inner world of ideas. Sensing suggests a preference for facts and concrete experience while intuition means the person looks for abstract possibilities and theories. Thinking means a person makes decisions based on analysis and logic while feeling means the person relies more on personal values. Judging reveals a preference for an orderly, planned way of life while perceptive suggests a more flexible, spontaneous approach to life. No one combination can be considered to be better than any other, though each type has its strengths and weaknesses. (p. 45)

Accountants have been sampled and tested with respect to their MBTI scores, and observed ISTJ patterns have been closely matched by follow-up studies, which evaluated the perceptions of accountants by other professionals:

According to these studies, it would appear that most accountants are perceived to be, as well as report themselves to be, likely to base judgments on impersonal analysis and logic (thinking), prefer a planned and orderly life (judging), are most comfortable dealing with



known facts (sensing), and are usually more at ease when working with ideas than with people (introversion). (Flaherty & Williams, 1995, p. 46)

Traditional accountants have been found to prefer sensing learning patterns, but in *New Students—New learning Styles*, Charles Schroeder (1993) contrasted that pattern with those of intuitives, who are generally more “big picture” (p. 2), global learners; focus more on imaginative possibilities than concrete realities; love concepts, ideas, and abstractions; prefer open-ended instruction to highly structured instruction; demonstrate a higher degree of autonomy in their learning; value knowledge for its own sake; prefer diversity in ideas; and are comfortable with ambiguity. These characteristics, intuitive as opposed to sensing, bear a close resemblance to what is currently desired of the “new” accountant; however, these traits are generally basic to the individual and hard to change. Schroeder (1993) concluded:

Students preferring the intuitive pattern indicated that they were attending the university primarily to: become accomplished in the performing arts; contribute to scientific theory; develop a philosophy of life; write original works; or, create artistic works. To the contrary, students preferring the sensing learning pattern indicated that their primary reason for attending the university was to be well-off financially and to have administrative responsibility. (p. 3)

Carel Wolk and Loren Nikolai (1997), in *Personality Types of Accounting Students and Faculty: Comparisons and Implications*, noted that although new skill sets are needed in the accounting profession, the “traditional [STJ] type personal qualities, such as a strong sense of responsibility, the ability to organize and structure information, attention to detail, etc. will continue to be needed for the profession to succeed” (p. 2). Wolk and Nikolai (1997), quoting

Jacoby (1981), concluded that a better “mix” of personality types was needed to “assure that graduates encompass the broad range of qualities and skill sets needed by the profession” (p. 2):

The prescription of an “ideal” personality type for accountants is complicated by the fact that public accounting practice by its very nature involves numerous conflicting role expectations. Accordingly, it would seem realistic to contend that individuals with diverse personality characteristics are needed and may be successful in the accounting profession...[And] the prescription of one set of personality characteristics for the ideal member of the profession is both naïve and potentially dysfunctional. (Jacoby, 1981, pp. 25 and 36)

The area of learning style research next to the core of personality research is information-processing styles. A prominent area of research at this layer has centered on Kolb’s experiential learning model, which describes a four-step, cyclic process: concrete experience, reflective observations, abstract conceptualization, and active experimentation (Flaherty & Williams, 1995, p. 46). Schroeder (1993) related two dimensions of the MBTI to the Kolb categories as follows:

- ES pattern—concrete active
- IS pattern—concrete reflective
- EN pattern—abstract active
- IN pattern—abstract reflective

According to Schroeder (1993):

Concrete active learners are action-oriented realists, the most practical of the four patterns, and learn best when useful applications are obvious. The concrete reflective learners are thoughtful realists preferring to deal with what is real and factual in a careful,

unhurried way. The abstract active learners are action-oriented innovators having wide-ranging interests and liking new possibilities as challenges to make something happen.

Finally, the abstract reflective learners are thoughtful innovators, introspective and scholarly, interested in knowledge for its own sake; they value ideas, theory, and depth of understanding. (pp. 3-4)

Richard Felder and Linda Silverman (1998), in *Learning and Teaching Styles in Engineering Education*, proposed a learning-style model to classify students according to where they fit on a number of scales pertaining to the ways they receive and process information. Their *Index of Learning Styles* instrument, which is considered to be less cumbersome and confusing than other learning-style instruments, was intended to be particularly useful for engineering students; however, it is based on the general theories of Jung's psychological types—which led to the MBTI—and Kolb's learning theory, and it has been used with business majors before in validation studies (Zywno, 2003, p. 2). This scoring instrument, its interpretation, and recommendations for students and teachers are provided free on the internet at <http://www.ncsu.edu/felder-public/ILSpage.html> and can be found in Appendix C, Appendix D, and Appendix E of this report. The self-scoring instrument assesses student preferences on the sensing/intuiting, visual/verbal, active/reflective, and sequential/global dimensions. This instrument could be easily adapted for use with students enrolled in ACC 201 at Ball State.

By assessing the learning styles of students taking ACC 201 and comparing against student performance and recruitment/retention in the accounting major, Ball State introductory accounting educators can determine if there is any bias in their classes that favor certain learning styles over others or that perpetuate the traditional accounting stereotype. The challenge for the

accounting faculty is to attract the best and brightest students across diverse learning styles and then provide various opportunities for all to succeed at learning.

### *Conclusion and Recommendations*

Accounting educators must continually assess and evaluate the interrelationships of three rapidly changing worlds: the roles of accountants within the business world; the evolving world of educational research on learning styles, teaching approaches, and instructional technology; and the world of an ever-more diverse student population. Today, accounting professionals are calling for the best and brightest students to enter the field and be flexible, life-long learners with astute communication, critical-thinking, and decision-making skills. Accounting educators must answer this call.

It is recommended that Ball State University, via student surveys and/or data mining of existing enrollment databases, determine the demographics/characteristics of the students enrolling in the beginning accounting course, ACC 201, and study the perceptions that those students have regarding the accounting profession, both before and after the first course is taken. Combined with assessments of students' learning styles, it will be possible to examine possible predictors of student failure within the course and to investigate possible factors that determine which students are likely to choose/remain in the accounting major after completion of the course. It will also be possible to determine whether the ACC 201 class is attracting the best and the brightest students with diverse abilities for the multiple roles needed in the "new" accounting profession or just favoring a certain stereotype of traditional accounting students, possibly counter to the "new" style. Further, the course's success at changing students' negative perceptions regarding accounting careers and the profession in general can be assessed.

Program evaluations, changes, and new directions must always be predicated upon good data. It is recommended that Ball State gather baseline data now about potential accounting majors. This data can form a basis for comparisons with any future data collected in evaluating possible accounting program changes, implementations of new teaching techniques, or other accounting studies. As stated by others before, “no one size fits all.” Consequently, Ball State must find its own niche and direction in accounting education. This starts with knowing and understanding the students in the first course.

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## **Appendix A**

### **Student Demographics/Characteristics:**

#### **Potential Survey Questions**

1. Age
  - a. < 21
  - b. 21-25
  - c. 26-30
  - d. >30
2. Race/Nationality
  - a. White American
  - b. African American
  - c. Asian American
  - d. Latin American
  - e. Native American
  - f. Non-American
3. Gender
  - a. Female
  - b. Male
4. Class Standing
  - a. Freshman
  - b. Sophomore
  - c. Junior
  - d. Senior
  - e. High School
  - f. Graduate
  - g. Other
5. Marital Status
  - a. Single/Divorced/Widowed
  - b. Married
6. Dependent children in your household this semester?
  - a. Yes
  - b. No
7. Housing this semester?
  - a. Dorm
  - b. Campus Apartment
  - c. Fraternity house
  - d. Parent's residence
  - e. Off-campus other
8. SAT Verbal Score: \_\_\_\_\_

9. SAT Math Score: \_\_\_\_\_
10. Class rank in high school (choose highest that applies)
  - a. Top 10%
  - b. Top 25%
  - c. Top 50%
  - d. Lower 50%
11. Completed an accounting class in high school?
  - a. Yes
  - b. No
12. Current GPA
  - a. < 2.0
  - b. 2.0-2.49
  - c. 2.5-2.99
  - d. 3.0-3.49
  - e. 3.5-4.0
13. Honors College?
  - a. Yes
  - b. No
14. Did you transfer from a junior college?
  - a. Yes
  - b. No
15. Did you transfer from another four-year college?
  - a. Yes
  - b. No
16. Were you enrolled in this class before?
  - a. Yes
  - b. No
17. Are you a scholarship recipient?
  - a. Yes
  - b. No
18. Do your parents/guardians claim you as a dependent?
  - a. Yes
  - b. No
19. Do your parents have a parent-plus loan?
  - a. Yes
  - b. No
20. Do you have a student loan?
  - a. Yes
  - b. No
21. Did one or both of your parents graduate from college?
  - a. Yes
  - b. No
22. Household income of custodial parent?
  - a. Not applicable

- b. < \$20,000
  - c.  $\geq$  \$20,000, < \$30,000
  - d.  $\geq$  \$30,000, < \$50,000
  - e.  $\geq$  \$50,000, < \$75,000
  - f.  $\geq$  \$75,000
23. Hours spent at a job per week during semester?
- a. None
  - b. > 0,  $\leq$  10
  - c. > 10,  $\leq$  20
  - d. > 20,  $\leq$  30
  - e. > 30, < 40
  - f.  $\geq$  40
24. How many hours of extra curricular activities do you average each week?
- a. 0
  - b. > 0,  $\leq$  2
  - c. > 2,  $\leq$  5
  - d. > 5
25. Do you belong to a sorority or fraternity?
- a. Yes
  - b. No
26. Choose highest level of math passed or granted credit from the following:
- a. High school geometry
  - b. Second year of algebra/MATHS 108
  - c. Pre-calculus/Trigonometry/MATHS 109/MATHS 112
  - d. MATHS 125/MATHS 131/Finite mathematics
  - e. MATHS 132/Business Calculus
  - f. MATHS 161, MATHS 165, or other Calculus I
  - g. MATHS 162 or MATHS 166, or other Calculus II
  - h. Class above Calculus II
27. Major (choose two if you plan a double major):
- a. Pre-Business Undecided
  - b. Non-Business Undecided
  - c. Accounting
  - d. Finance
  - e. Insurance
  - f. Business/Marketing Education
  - g. International Business
  - h. Business Administration
  - i. Economics
  - j. Business Information Technology
  - k. Management Information Systems
  - l. Other Management (Business)
  - m. Marketing
  - n. Legal Assistance

- o. Dietetic Technology/Food Management
- p. Residential Property Management
- q. Sport Administration
- r. Aquatics
- s. Financial Mathematics
- t. Actuarial Science
- u. Mathematical Economics
- v. Other: \_\_\_\_\_

28. Minor(s): \_\_\_\_\_

29. Do you plan to do a semester internship?

- a. Definitely yes.
- b. Probably yes.
- c. Not sure.
- d. Probably not.
- e. Definitely no.

30. Do you plan to study abroad?

- a. Definitely yes.
- b. Probably yes.
- c. Not sure.
- d. Probably not.
- e. Definitely no.

31. Status with regard to the following courses:

a. Eng101:	A B C D Exempt with Credit	Not Taken	Currently Enrolled
b. Eng102:	A B C D Exempt with Credit	Not Taken	Currently Enrolled
c. Eng103:	A B C D Exempt with Credit	Not Taken	Currently Enrolled
d. Eng104:	A B C D Exempt with Credit	Not Taken	Currently Enrolled
e. Eng114:	A B C D Exempt with Credit	Not Taken	Currently Enrolled
f. BEOA210:	A B C D Exempt with Credit	Not Taken	Currently Enrolled
g. ECON201:	A B C D Exempt with Credit	Not Taken	Currently Enrolled
h. ECON202:	A B C D Exempt with Credit	Not Taken	Currently Enrolled
i. ECON221:	A B C D Exempt with Credit	Not Taken	Currently Enrolled
j. MATH131:	A B C D Exempt with Credit	Not Taken	Currently Enrolled
k. MATH132:	A B C D Exempt with Credit	Not Taken	Currently Enrolled

32. Number of credit hours this semester? \_\_\_\_\_



## **Appendix B**

### **Student Perceptions of Accounting:**

#### **Potential Survey Questions**

[Questions 25-35 are adapted from Geiger & Ogilby (n. d.)]

1. Accounting will be important to my future career.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
2. Of the following three subjects, the one I would most likely take a course in is:
  - a. English composition
  - b. Speech communication
  - c. Math
  - d. Social studies
  - e. Science
3. Accounting is the language of business and is a good major for any business career.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
4. All accountants need to pursue a 150-hour program.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
5. Accounting degrees are very specialized and technical and limit one's career choices to accounting fields.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
6. Ball State should offer a minor in accounting.
  - a. Yes
  - b. No

7. The success of an accounting program can be measured by the number of graduates who take and pass the CPA exam.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
8. Those individuals who are not top math students should not choose accounting as a major or career.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
9. The accounting field has many diverse career possibilities.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
10. One needs a good attention span for details to major in accounting.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
11. Those who enjoy working with people would not be a good fit for an accounting degree or career.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
12. Accounting is becoming a dead profession, replaced by the PC.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
13. Accounting is a safe major in bad economic times.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree

- e. Strongly disagree
- 14. Ball State should offer and require management information systems minors for accounting majors.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 15. I would never consider a major in accounting.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 16. Accountants have a limited view of business.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 17. Accounting no longer needs to be a required course, but could be covered in BIT courses that teach computer spreadsheets and databases.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 18. The accounting professional image has been severely damaged by the ENRON/Arthur Andersen, etc., scandals.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 19. Accountants are generally very honest and trustworthy individuals.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 20. Accountants have an important role to serve the public trust.
  - a. Strongly agree
  - b. Agree
  - c. Not sure

- d. Disagree
  - e. Strongly disagree
21. Accounting is a very tedious and boring profession.
- a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
22. Accountants are detail oriented and boring.
- a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
23. Serving a semester-long internship is essential to getting an accounting major and becoming employed in the field.
- a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
24. Accounting is a well-defined and non-changing profession.
- a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
25. ACC 201 will help me to do well in my future business courses.
- a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
26. ACC 201 will help me do well in my career.
- a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
27. Doing well in ACC 201 would be personally rewarding.
- a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree

- e. Strongly disagree
- 28. I expect to spend more time on ACC 201 than my other courses.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 29. I am looking forward to ACC 201.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 30. ACC 201 will be difficult.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 31. ACC 201 will be boring.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 32. I am highly motivated to do well in ACC 201.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 33. I expect to learn a lot in ACC 201.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 34. The instructor will affect my opinion of the usefulness of ACC 201.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 35. What grade do you expect to get in ACC 201?

- a. A
- b. B
- c. C
- d. D

36. Rank the following career areas by how you perceive the salaries to compare. Use 1 for the top, etc.

- a. \_\_\_ Accounting
- b. \_\_\_ Business Education
- c. \_\_\_ Economics
- d. \_\_\_ Business Technology
- e. \_\_\_ Insurance
- f. \_\_\_ Finance
- g. \_\_\_ Management Information Systems
- h. \_\_\_ Other management
- i. \_\_\_ Marketing

37. Rank the following college majors by your perception of prestige. Use 1 for the top, etc.

- a. \_\_\_ Accounting
- b. \_\_\_ Business Education
- c. \_\_\_ Economics
- d. \_\_\_ Business Technology
- e. \_\_\_ Insurance
- f. \_\_\_ Finance
- g. \_\_\_ Management Information Systems
- h. \_\_\_ Other management
- i. \_\_\_ Marketing

38. Rank the following college majors by your perception of level of difficulty. Use 1 for the top, etc.

- a. \_\_\_ Accounting
- b. \_\_\_ Business Education
- c. \_\_\_ Economics
- d. \_\_\_ Business Technology
- e. \_\_\_ Insurance
- f. \_\_\_ Finance
- g. \_\_\_ Management Information Systems
- h. \_\_\_ Other management
- i. \_\_\_ Marketing

39. Rank the following college majors by your desirability as a personal choice of majors. Use 1 for the top, etc.

- a. \_\_\_ Accounting
- b. \_\_\_ Business Education
- c. \_\_\_ Economics
- d. \_\_\_ Business Technology
- e. \_\_\_ Insurance

- f. \_\_\_\_ Finance
- g. \_\_\_\_ Management Information Systems
- h. \_\_\_\_ Other management
- i. \_\_\_\_ Marketing

40. Accountants are very intelligent individuals.

- a. Strongly agree
- b. Agree
- c. Not sure
- d. Disagree
- e. Strongly disagree

## **Appendix C**

### **INDEX OF LEARNING STYLES**

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### **DIRECTIONS**

Circle "a" or "b" to indicate your answer to every question. Please choose only one answer for each question.

If both "a" and "b" seem to apply to you, choose the one that applies more frequently.

1. I understand something better after I
  - (a) try it out.
  - (b) think it through.
2. I would rather be considered
  - (a) realistic.
  - (b) innovative.
3. When I think about what I did yesterday, I am most likely to get
  - (a) a picture.
  - (b) words.
4. I tend to
  - (a) understand details of a subject but may be fuzzy about its overall structure.
  - (b) understand the overall structure but may be fuzzy about details.
5. When I am learning something new, it helps me to
  - (a) talk about it.
  - (b) think about it.
6. If I were a teacher, I would rather teach a course
  - (a) that deals with facts and real life situations.
  - (b) that deals with ideas and theories.
7. I prefer to get new information in
  - (a) pictures, diagrams, graphs, or maps.
  - (b) written directions or verbal information.
8. Once I understand
  - (a) all the parts, I understand the whole thing.
  - (b) the whole thing, I see how the parts fit.



9. In a study group working on difficult material, I am more likely to
  - (a) jump in and contribute ideas.
  - (b) sit back and listen.
10. I find it easier
  - (a) to learn facts.
  - (b) to learn concepts.
11. In a book with lots of pictures and charts, I am likely to
  - (a) look over the pictures and charts carefully.
  - (b) focus on the written text.
12. When I solve math problems
  - (a) I usually work my way to the solutions one step at a time.
  - (b) I often just see the solutions but then have to struggle to figure out the steps to get to them.
13. In classes I have taken
  - (a) I have usually gotten to know many of the students.
  - (b) I have rarely gotten to know many of the students.
14. In reading nonfiction, I prefer
  - (a) something that teaches me new facts or tells me how to do something.
  - (b) something that gives me new ideas to think about.
15. I like teachers
  - (a) who put a lot of diagrams on the board.
  - (b) who spend a lot of time explaining.
16. When I'm analyzing a story or a novel
  - (a) I think of the incidents and try to put them together to figure out the themes.
  - (b) I just know what the themes are when I finish reading and then I have to go back and find the incidents that demonstrate them.
17. When I start a homework problem, I am more likely to
  - (a) start working on the solution immediately.
  - (b) try to fully understand the problem first.
18. I prefer the idea of
  - (a) certainty.
  - (b) theory.
19. I remember best
  - (a) what I see.
  - (b) what I hear.
20. It is more important to me that an instructor
  - (a) lay out the material in clear sequential steps.
  - (b) give me an overall picture and relate the material to other subjects.
21. I prefer to study
  - (a) in a study group.
  - (b) alone.
22. I am more likely to be considered
  - (a) careful about the details of my work.
  - (b) creative about how to do my work.

23. When I get directions to a new place, I prefer
  - (a) a map.
  - (b) written instructions.
24. I learn
  - (a) at a fairly regular pace. If I study hard, I'll "get it."
  - (b) in fits and starts. I'll be totally confused and then suddenly it all "clicks."
25. I would rather first
  - (a) try things out.
  - (b) think about how I'm going to do it.
26. When I am reading for enjoyment, I like writers to
  - (a) clearly say what they mean.
  - (b) say things in creative, interesting ways.
27. When I see a diagram or sketch in class, I am most likely to remember
  - (a) the picture.
  - (b) what the instructor said about it.
28. When considering a body of information, I am more likely to
  - (a) focus on details and miss the big picture.
  - (b) try to understand the big picture before getting into the details.
29. I more easily remember
  - (a) something I have done.
  - (b) something I have thought a lot about.
30. When I have to perform a task, I prefer to
  - (a) master one way of doing it.
  - (b) come up with new ways of doing it.
31. When someone is showing me data, I prefer
  - (a) charts or graphs.
  - (b) text summarizing the results.
32. When writing a paper, I am more likely to
  - (a) work on (think about or write) the beginning of the paper and progress forward.
  - (b) work on (think about or write) different parts of the paper and then order them.
33. When I have to work on a group project, I first want to
  - (a) have "group brainstorming" where everyone contributes ideas.
  - (b) brainstorm individually and then come together as a group to compare ideas.
34. I consider it higher praise to call someone
  - (a) sensible.
  - (b) imaginative.
35. When I meet people at a party, I am more likely to remember
  - (a) what they looked like.
  - (b) what they said about themselves.
36. When I am learning a new subject, I prefer to
  - (a) stay focused on that subject, learning as much about it as I can.
  - (b) try to make connections between that subject and related subjects.

37. I am more likely to be considered
  - (a) outgoing.
  - (b) reserved.
38. I prefer courses that emphasize
  - (a) concrete material (facts, data).
  - (b) abstract material (concepts, theories).
39. For entertainment, I would rather
  - (a) watch television.
  - (b) read a book.
40. Some teachers start their lectures with an outline of what they will cover. Such outlines are
  - (a) somewhat helpful to me.
  - (b) very helpful to me.
41. The idea of doing homework in groups, with one grade for the entire group,
  - (a) appeals to me.
  - (b) does not appeal to me.
42. When I am doing long calculations,
  - (a) I tend to repeat all my steps and check my work carefully.
  - (b) I find checking my work tiresome and have to force myself to do it.
43. I tend to picture places I have been
  - (a) easily and fairly accurately.
  - (b) with difficulty and without much detail.
44. When solving problems in a group, I would be more likely to
  - (a) think of the steps in the solution process.
  - (b) think of possible consequences or applications of the solution in a wide range of areas.

## Appendix D

### SCORING SHEET

1. Put "1"s in the appropriate spaces in the table below (e.g. if you answered "a" to Question 3, put a "1" in Column "a" by Question 3).
2. Total the columns and write the totals in the indicated spaces.
3. For each of the four scales, subtract the smaller total from the larger one. Write the difference (1 to 11) and the letter (a or b) with the larger total.

For example, if under "ACT/REF" you had 4 "a" and 7 "b" responses, you would write "3b" on the bottom line under that heading (3 = 7- 4, and the "b" total was the larger of the two.)

ACT/REF			SEN/INT			VIS/VRB			SEQ/GLO		
Q	a	b	Q	a	b	Q	a	b	Q	a	b
1	—	—	2	—	—	3	—	—	4	—	—
5	—	—	6	—	—	7	—	—	8	—	—
9	—	—	10	—	—	11	—	—	12	—	—
13	—	—	14	—	—	15	—	—	16	—	—
17	—	—	18	—	—	19	—	—	20	—	—
21	—	—	22	—	—	23	—	—	24	—	—
25	—	—	26	—	—	27	—	—	28	—	—
29	—	—	30	—	—	31	—	—	32	—	—
33	—	—	34	—	—	35	—	—	36	—	—
37	—	—	38	—	—	39	—	—	40	—	—
41	—	—	42	—	—	43	—	—	44	—	—
Total (sum X's in each column)											
ACT/REF			SEN/INT			VIS/VRB			SEQ/GLO		
a	b		a	b		a	b		a	b	
—	—		—	—		—	—		—	—	
(Larger - Smaller) + Letter of Larger (see below*)											

\*Example: If you totaled 3 for a and 8 for b, you would enter 5b.

### Explanation of scores

- If your score on a scale is 1-3, you have a mild preference for one or the other dimension but you are essentially well balanced. (For example, a 3a in the ACT/REF category indicates a mild preference for active learning.)
- If your score on a scale is 5-7, you have a moderate preference for one dimension of the scale and will learn more easily in a teaching environment which favors that dimension.
- If your score on a scale is 9-11, you have a strong preference for one dimension of the scale. You may have real difficulty learning in an environment which does not support that preference.

## Appendix E

### LEARNING STYLES AND STRATEGIES

Richard M. Felder

Hoechst Celanese Professor of Chemical Engineering  
North Carolina State University

Barbara A. Solomon

Coordinator of Advising, First Year College  
North Carolina State University

### ACTIVE AND REFLECTIVE LEARNERS

- Active learners tend to retain and understand information best by doing something active with it--discussing or applying it or explaining it to others. Reflective learners prefer to think about it quietly first.
- "Let's try it out and see how it works" is an active learner's phrase; "Let's think it through first" is the reflective learner's response.
- Active learners tend to like group work more than reflective learners, who prefer working alone.
- Sitting through lectures without getting to do anything physical but take notes is hard for both learning types, but particularly hard for active learners.

*Everybody is active sometimes and reflective sometimes.* Your preference for one category or the other may be strong, moderate, or mild. A balance of the two is desirable. If you always act before reflecting you can jump into things prematurely and get into trouble, while if you spend too much time reflecting you may never get anything done.

#### **How can active learners help themselves?**

If you are an active learner in a class that allows little or no class time for discussion or problem-solving activities, you should try to compensate for these lacks when you study. Study in a group in which the members take turns explaining different topics to each other. Work with others to guess what you will be asked on the next test and figure out how you will answer. You will always retain information better if you find ways to do something with it.

#### **How can reflective learners help themselves?**

If you are a reflective learner in a class that allows little or not class time for thinking about new information, you should try to compensate for this lack when you study. Don't simply read or memorize the material; stop periodically to review what you have read and to think of possible questions or applications. You might find it helpful to write short summaries of readings or class notes in your own words. Doing so may take extra time but will enable you to retain the material more effectively.

### SENSING AND INTUITIVE LEARNERS

- Sensing learners tend to like learning facts, intuitive learners often prefer discovering possibilities and relationships.

- Sensors often like solving problems by well-established methods and dislike complications and surprises; intuitors like innovation and dislike repetition. Sensors are more likely than intuitors to resent being tested on material that has not been explicitly covered in class.
- Sensors tend to be patient with details and good at memorizing facts and doing hands-on (laboratory) work; intuitors may be better at grasping new concepts and are often more comfortable than sensors with abstractions and mathematical formulations.
- Sensors tend to be more practical and careful than intuitors; intuitors tend to work faster and to be more innovative than sensors.
- Sensors don't like courses that have no apparent connection to the real world; intuitors don't like "plug-and-chug" courses that involve a lot of memorization and routine calculations.

*Everybody is sensing sometimes and intuitive sometimes.* Your preference for one or the other may be strong, moderate, or mild. To be effective as a learner and problem solver, you need to be able to function both ways. If you overemphasize intuition, you may miss important details or make careless mistakes in calculations or hands-on work; if you overemphasize sensing, you may rely too much on memorization and familiar methods and not concentrate enough on understanding and innovative thinking.

#### **How can sensing learners help themselves?**

Sensors remember and understand information best if they can see how it connects to the real world. If you are in a class where most of the material is abstract and theoretical, you may have difficulty. Ask your instructor for specific examples of concepts and procedures, and find out how the concepts apply in practice. If the teacher does not provide enough specifics, try to find some in your course text or other references or by brainstorming with friends or classmates.

#### **How can intuitive learners help themselves?**

Many college lecture classes are aimed at intuitors. However, if you are an intuitor and you happen to be in a class that deals primarily with memorization and rote substitution in formulas, you may have trouble with boredom. Ask your instructor for interpretations or theories that link the facts, or try to find the connections yourself. You may also be prone to careless mistakes on test because you are impatient with details and don't like repetition (as in checking your completed solutions). Take time to read the entire question before you start answering and be sure to check your results.

### **VISUAL AND VERBAL LEARNERS**

Visual learners remember best what they see--pictures, diagrams, flow charts, time lines, films, and demonstrations. Verbal learners get more out of words--written and spoken explanations. Everyone learns more when information is presented both visually and verbally.

In most college classes very little visual information is presented: students mainly listen to lectures and read material written on chalkboards and in textbooks and handouts. Unfortunately, most people are visual learners, which means that most students do not get nearly as much as they would if more visual presentation were used in class. Good learners are capable of processing information presented either visually or verbally.

#### **How can visual learners help themselves?**

If you are a visual learner, try to find diagrams, sketches, schematics, photographs, flow charts, or any other visual representation of course material that is predominantly verbal. Ask your instructor, consult reference books, and see if any videotapes or CD-ROM displays of the course material are available. Prepare a concept map by listing key points, enclosing them in boxes or circles, and drawing lines with arrows between concepts to show connections. Color-code your notes with a highlighter so that everything relating to one topic is the same color.

### **How can verbal learners help themselves?**

Write summaries or outlines of course material in your own words. Working in groups can be particularly effective: you gain understanding of material by hearing classmates' explanations and you learn even more when you do the explaining.

### **SEQUENTIAL AND GLOBAL LEARNERS**

- Sequential learners tend to gain understanding in linear steps, with each step following logically from the previous one. Global learners tend to learn in large jumps, absorbing material almost randomly without seeing connections, and then suddenly "getting it."
- Sequential learners tend to follow logical stepwise paths in finding solutions; global learners may be able to solve complex problems quickly or put things together in novel ways once they have grasped the big picture, but they may have difficulty explaining how they did it.

Many people who read this description may conclude incorrectly that they are global, since everyone has experienced bewilderment followed by a sudden flash of understanding. What makes you global or not is what happens before the light bulb goes on. Sequential learners may not fully understand the material but they can nevertheless do something with it (like solve the homework problems or pass the test) since the pieces they have absorbed are logically connected. Strongly global learners who lack good sequential thinking abilities, on the other hand, may have serious difficulties until they have the big picture. Even after they have it, they may be fuzzy about the details of the subject, while sequential learners may know a lot about specific aspects of a subject but may have trouble relating them to different aspects of the same subject or to different subjects.

### **How can sequential learners help themselves?**

Most college courses are taught in a sequential manner. However, if you are a sequential learner and you have an instructor who jumps around from topic to topic or skips steps, you may have difficulty following and remembering. Ask the instructor to fill in the skipped steps, or fill them in yourself by consulting references. When you are studying, take the time to outline the lecture material for yourself in logical order. In the long run doing so will save you time. You might also try to strengthen your global thinking skills by relating each new topic you study to things you already know. The more you can do so, the deeper your understanding of the topic is likely to be.

### **How can global learners help themselves?**

If you are a global learner, it can be helpful for you to realize that you need the big picture of a subject before you can master details. If your instructor plunges directly into new topics without bothering to explain how they relate to what you already know, it can cause problems for you. Fortunately, there are steps you can take that may help you get the big picture more rapidly. Before you begin to study the first section of a chapter in a text, skim through the entire chapter



to get an overview. Doing so may be time-consuming initially but it may save you from going over and over individual parts later. Instead of spending a short time on every subject every night, you might find it more productive to immerse yourself in individual subjects for large blocks. Try to relate the subject to things you already know, either by asking the instructor to help you see connections or by consulting references. Above all, don't lose faith in yourself; you will eventually understand the new material, and once you do your understanding of how it connects to other topics and disciplines may enable you to apply it in ways that most sequential thinkers would never dream of.